

AUTHORIZATION TO DISCHARGE UNDER THE  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Clean Water Act as amended, (33 U.S.C. §§1251 et seq.; the "CWA", and the Massachusetts Clean Waters Act, as amended, (M.G.L. Chap. 21, §§26-53),

**Town of Marshfield**

is authorized to discharge from the facility located at

**Marshfield Wastewater Treatment Plant  
P.O. Box 268  
200 Town Pier Road  
Brant Rock, MA 02020**

to receiving water named

**Massachusetts Bay**

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective on the date of signature.

This permit and the authorization to discharge expire at midnight, five (5) years from the effective date.

This permit supersedes the permit issued on April 29, 1996.

This permit consists of 9 pages in Part I including effluent limitations, monitoring requirements; Attachment A, Marine Acute Toxicity Test Protocol and Procedures; Attachment B, Sludge Guidance, and 35 pages in Part II including General Conditions and Definitions.

Signed this 7<sup>th</sup> day of September, 2001

/Signature on File/

Linda M. Murphy

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Director  
Office of Ecosystem Protection  
Environmental Protection Agency  
Boston, MA

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Acting Assistant Commissioner  
Bureau of Resource Protection  
Department of Environmental Protection  
Commonwealth of Massachusetts  
Boston, MA

## PART I

## A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge treated effluent from outfall serial number 001. Such discharge shall be limited and monitored by the permittee as specified below.

<u>Effluent Characteristic</u>	<u>Units</u>	<u>Discharge Limitation</u>			<u>Monitoring Requirement</u>	
		<u>Average Monthly</u>	<u>Average Weekly</u>	<u>Maximum Daily</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	MGD	2.1 <sup>1</sup>	----	Report	Continuous <sup>1</sup>	Recorder
BOD <sub>5</sub>	mg/l	30	45	Report	1/Week <sup>2</sup>	24-Hour Comp. <sup>3</sup>
	lb/day	526	789	----		
TSS	mg/l	30	45	Report	1/Week <sup>2</sup>	24-Hour Comp. <sup>3</sup>
	lb/day	526	789	----		
pH		(See Condition I.A.1.b. on Page 3)			1/Day	Grab
Fecal Coliform Bacteria <sup>4</sup>	cfu/100ml	200	400	400	3/Week	Grab
LC <sub>50</sub> <sup>5</sup>	%	----	----	> 100	4/Year <sup>6</sup>	24-Hr Comp <sup>3</sup>

## Footnotes:

1. For flow, report maximum and minimum daily rates and total flow for each operating date.  
  
The flow limit is an annual average in stead of monthly average. Each month, the permittee shall report the annual average flow using the monthly average flow from the reporting month and the monthly average flows from the preceding 11 months.
2. Sampling required for influent and effluent.
3. A 24-hour composite sample will consist of at least twenty four (24) grab samples taken during one working day.
4. Fecal coliform limit will apply and monitoring will be required year round. This is a State certification requirement. The average monthly limitation is expressed as geometric mean. One grab sample shall be taken each time during the maintenance period of the UV System. If fecal coliform limits are not met, report the result in accordance with Section D.1.e.(1) of the General Requirements of this permit (Twenty-four hour reporting).
5. The  $LC_{50}$  is the concentration of effluent which causes mortality to 50% of the test organisms. Therefore, a 100% limit means that a sample of 100% effluent (no dilution) shall cause no more than a 50% mortality rate.
6. The permittee shall conduct acute toxicity tests four times per year. The permittee shall test the Mysid shrimp only. Toxicity test samples shall be collected on the second week of March, June, September, and December. Results are to be submitted by the 30th day of the next month after the sample i.e. April, July, October, and January. See Permit Attachment A, Toxicity Test Procedure and Protocol.

## Part I.A. (Continued)

- a. The discharge shall not cause a violation of the water quality standards of the receiving waters.
- b. The pH of the effluent shall not be less than 6.5 nor greater than 8.5 at any time, unless these values are exceeded due to natural causes or as a result of the approved treatment processes.
- c. The discharge shall not cause objectionable discoloration of the receiving waters.
- d. The effluent shall contain neither a visible oil sheen, foam, nor floating solids at any time.
- e. The permittee's treatment facility shall maintain a minimum of 85 percent

removal of both total suspended solids and biochemical oxygen demand. The percent removal shall be based on monthly average values.

- f. When the effluent discharged for a period of 90 consecutive days exceeds 80 percent of the designed flow, the permittee shall submit to the permitting authorities a projection of loadings up to the time when the design capacity of the treatment facility will be reached, and a program for maintaining satisfactory treatment levels consistent with approved water quality management plans.

2. All POTWs must provide adequate notice to the Director of the following:

- a. Any new introduction of pollutants into that POTW from an indirect discharger in a primary industry category discharging process water; and
- b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
- c. For purposes of this paragraph, adequate notice shall include information on:
  - (1) the quantity and quality of effluent introduced into the POTW; and
  - (2) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

3. Prohibitions Concerning Interference and Pass-Through:

- a. Pollutants introduced into POTW's by a non-domestic source (user) shall not pass through the POTW or interfere with the operation or performance of the works.
- b. If, within 30 days after notice of an interference or pass through violation has been sent by EPA to the POTW, and to persons or groups who have requested such notice, the POTW fails to commence appropriate enforcement action to correct the violation, EPA may take appropriate enforcement action.

4. Toxics Control

- a. The permittee shall not discharge any pollutant or combination of pollutants in toxic amounts.
- b. Any toxic components of the effluent shall not result in any demonstrable harm to aquatic life or violate any state or federal water quality standard which has been or may be promulgated. Upon promulgation of any such standard, this permit may be revised or amended in accordance with such standards.

5. Numerical Effluent Limitations for Toxicants

EPA or DEP may use the results of the toxicity tests and chemical analyses conducted pursuant to this permit, as well as national water quality criteria developed pursuant to Section 304(a)(1) of the Clean Water Act (CWA), state water quality criteria, and any other appropriate information or data, to develop numerical effluent limitations for any pollutants, including but not limited to those pollutants listed in Appendix D of 40 CFR Part 122.

**B. PRETREATMENT****1. Limitations for Industrial Users:**

- a. Pollutants introduced into POTW's by a non-domestic source (user) shall not pass through the POTW or interfere with the operation or performance of the works.

**C. UNAUTHORIZED DISCHARGES**

The permittee is authorized to discharge only in accordance with the terms and conditions of this permit and only from outfalls listed in Part I A.1. of this permit. Discharges of wastewater from any other point sources, including sanitary sewer overflows (SSOs) are not authorized by this permit and shall be reported in accordance with Section D.1.e. (1) of the General Requirements of this permit (Twenty-four hour reporting).

**D. OPERATION AND MAINTENANCE OF THE SEWER SYSTEM**

Operation and maintenance of the sewer system shall be in compliance with the General Requirements of Part II and the following terms and conditions:

**1. Maintenance Staff**

The permittee shall provide an adequate staff to carry out the operation, maintenance, repair, and testing functions required to ensure compliance with the terms and conditions of this permit.

**2. Infiltration/Inflow**

The permittee shall develop and implement a plan to control infiltration and inflow to the sewer system. The plan shall be submitted to EPA and MA DEP within 6 months after the effective date of the permit. The plan shall:

- eliminate high flow related effluent limit violations and all high flow related unauthorized discharges of sanitary sewerage.
- include a program of internal pipeline and manhole inspections designed to provide an understanding of the sewerage system, identify significant I/I sources, and identify all potential and actual unauthorized discharges of sanitary sewerage.

- include a preventive maintenance program designed to avoid high flow related effluent limit violations and unauthorized discharges due to malfunctions or failures of the sewer system infrastructure.
- contain an implementation strategy that includes a schedule and funding requirements.

A summary report of all actions taken to minimize I/I during the previous calendar year shall be submitted to EPA and the MA DEP by **February 28<sup>th</sup> of each year**. The summary report shall include:

- a graph of flows to the treatment plant during the year and an analysis of I/I trends (i.e. is I/I being reduced)
- a description of inspection and maintenance activities conducted.
- an accounting of I/I related expenditures.
- A report of unauthorized discharges during the previous calendar year which were caused by inadequate sewer system capacity including a status of action items necessary to eliminate the discharges. The information reported shall include the date, location, duration, and volume of discharge as well as the cause of the overflow and the receiving water.

### 3. Alternate Power Source

In order to maintain compliance with the terms and conditions of this permit, the permittee shall continue to provide an alternative power source with which to sufficiently operate its treatment works (as defined at 40 CFR §122.2).

## E. SLUDGE CONDITIONS

1. The permittee shall comply with all existing federal and state laws and regulations that apply to sewage sludge use and disposal practices and with the CWA Section 405(d) technical standards.
2. The permittee shall comply with the more stringent of either the state or federal (40 CFR part 503), requirements.
3. The requirements and technical standards of 40 CFR part 503 apply to facilities which perform one or more of the following use or disposal practices.
  - a. Land application - the use of sewage sludge to condition or fertilize the soil
  - b. Surface disposal - the placement of sewage sludge in a sludge-only landfill

- c. Sewage sludge incineration in a sludge only incinerator
4. The 40 CFR part 503 conditions do not apply to facilities which place sludge within a municipal solid waste landfill and is in compliance 40 CFR Part 258. These conditions also do not apply to facilities which do not dispose of sewage sludge during the life of the permit but rather treat the sludge (i.e.lagoons- reed beds), or are otherwise excluded under 40 CFR 503.6.
5. The permittee shall use and comply with the attached compliance guidance document ( see attachment B) to determine appropriate conditions. Appropriate conditions contain the following elements.
- General requirements
  - Pollutant limitations
  - Operational Standards (pathogen reduction requirements and vector attraction reduction requirements)
  - Management practices
  - Record keeping
  - Monitoring
  - Reporting

Depending upon the quality of material produced by a facility, all conditions may not apply to the facility.

6. The permittee shall monitor the pollutant concentrations, pathogen reduction and vector attraction reduction at the following frequency. This frequency is based upon the volume of sewage sludge generated at the facility in dry metric tons per year

less than 290	1/ year
290 to less than 1500	1 /quarter
1500 to less than 15000	6 /year
15000 +	1 /month

7. The permittee shall sample the sewage sludge using the procedures detailed in 40 CFR 503.8
8. The permittee shall submit an annual report containing the information specified in the guidance. Reports are due annually by February 19. Reports shall be submitted to the address contained in the reporting section of the permit.

## **F. MONITORING AND REPORTING**

1. Reporting

Monitoring results obtained during the previous month shall be summarized for each month and reported on separate Discharge Monitoring Report Form(s) postmarked no later than the 15th day of the month following the effective date of the permit.

Signed and dated originals of these, and all other reports required herein, shall be submitted to the Director and the State at the following addresses:

Environmental Protection Agency  
Water Technical Unit (SEW)  
P.O. Box 8127  
Boston, Massachusetts 02114

The State Agency is:

Massachusetts Department of Environmental Protection  
Bureau of Resource Protection  
Southeast Regional Office  
20 Riverside Drive  
Lakeville, MA 02347

Signed and dated Discharge Monitoring Report Forms and toxicity test reports required by this permit shall also be submitted to the State at:

Massachusetts Department of Environmental Protection  
Division of Watershed Management  
Surface Water Discharge Permit Program  
627 Main Street, 2nd Floor  
Worcester, Massachusetts 01608

## **G. STATE PERMIT CONDITIONS**

This Discharge Permit is issued jointly by the U. S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (DEP) under Federal and State law, respectively. As such, all the terms and conditions of this permit are hereby incorporated into and constitute a discharge permit issued by the Commissioner of the MA DEP pursuant to M.G.L. Chap.21, §43.

Each Agency shall have the independent right to enforce the terms and conditions of this Permit. Any modification, suspension or revocation of this Permit shall be effective only with respect to the Agency taking such action, and shall not affect the validity or status of this Permit as issued by the other Agency, unless and until each Agency has concurred in writing with such modification, suspension or revocation. In the event any portion of this Permit is declared, invalid, illegal or otherwise issued in violation of State law such permit shall remain in full force and effect under Federal law as an NPDES Permit issued by the U.S. Environmental Protection Agency. In the event this Permit is declared invalid, illegal or otherwise issued in violation of Federal law, this Permit shall remain in full force and effect under State law as a Permit issued by the Commonwealth of Massachusetts.